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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

PR Docket No. 94-59

In the Matter of)	
)	
Amendment of Part 97 of the)	RM-8218
Commission's Rules Concerning)	RM-8280
HF Digital Communications in the)	
Amateur Service.)	

To: The Commission

COMMENTS

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September 8, 1994

My name is Bruce Hoff. I am an FCC licensed radio amateur, and I offer my comments regarding PR Docket 94-59.

1. I believe the proposed rule making is not based on enough information and does not represent the needs of all amateurs that transmit digital emissions. I believe I have pertinent information based on facts and personal experience, and, according to communications, that my views are shared by many others who are active with amateur digital modes.

2. The intent of PR Docket No. 94-59, is to authorize automatic control of digital stations in the HF amateur bands, but with provisions to prevent causing interference to other amateur activities.

3. A petition from the ARRL, proposed the use of band segments per part (b) of proposed rule 97.221 for the use of automatically controlled digital stations. Such subbands would protect amateurs from interference, to facilitate development of digital communications and at the same time establish places for automatic stations to operate.

4. A petition from the ADRS group, proposed the addition of part (c) to the proposed rule 97.221. It would approve operation of an automatically controlled digital station throughout all of the frequencies authorized for amateur rtty or data emissions, provided that (1) it is transmitting in response to interrogation by a station under local or remote control, and (2) that its transmission does not occupy a bandwidth of more than 500 hz.

5. Digital amateurs have been looking forward to the planned ARRL subbands, as the solution to the problem of interferences caused by the influx of unattended station operations, that began six or seven years ago, among frequencies popular with the conventional users of amtor and pactor, and soon reached rampant levels. Providing specific band segments will serve as guidance for a needed separation to pacify amateur operators and facilitate the development of digital communications for both types of activities. The inclusion of the terms of 97.221(c) in the docket, was not expected by those amateurs not in a circle of communications alert to rule make activities. Considering the real need, the proposed rule 97.221(c)(1) is contrary to the intent of Docket 94-59 as I will explain herein.

6. Automatically controlled stations are a specific type of amateur operation, proven incompatible with conventional digital amateur activities because of the interference caused. Many of them self-bandplan, voluntarily operating in otherwise unused parts of the bands, and in such case do not cause interference to conventional activities.

7. Others chose to operate, most of them scanning a number of frequencies, amidst the frequencies that are popular for the conventional amtor and pactor activities. These, therefore, are the stations that cause the problem interference that concerns Docket 94-59. These stations are usually interrogated by a locally or remotely controlled station that is in a location hundreds or thousands of miles distant, and it is wholly

impossible for the operator, of that distant station, to ensure that the station his station activates will not interfere with other amateur activities that are not in his own range of reception. A commonplace situation. Interrupted amateurs indentify the source of interference in the text transmitted by the interrogated station. The same situation is recognized when a person dials a radio across the HF bands, as do radio amateurs and short wave listeners, and then stops to listen to a communications and finds that he can hear only one side of that communications because of the differences in ranges covered by those stations.

8. The ARRL STA and committee studies were involved with the packet mode of operations, and did not investigate or report on problems of the already existing interference among the frequencies used by the users of the amtor and pactor modes. But, an earlier ARRL survey did result in responses, from users of all modes, advocating the establishment of specific band segments for all automatic stations.

9. Most automatically controlled digital stations provide message forwarding services to other amateurs, and are very much appreciated. Being interfered with, or causing interference to others, is not the will of the traffic system amateurs who establish the automatic systems. They have also been waiting for the ARRL band segment proposal. Unattended digital stations must be separated from regular digital activities, as with the separation from audio communications. The traffic system should

be better able to organize in specified bands, their functions and interests will not be impeded, and their effectiveness will be augmented. Users will learn to adapt to the atmosphere of the unattended band segments in order to use the traffic systems. There is no need, and no purpose, for automatically controlled stations to operate on all of the frequencies where data and RTTY type emissions are authorized, per the proposed 97.221(c)(1).

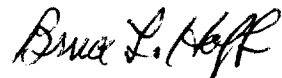
10. The proposed rule 97.221(b) includes a 40 meter band segment of 5 khz. The small size of this segment is of much concern to amateurs interested in automatic operations, and a prime motive for the filing of the petition for RM 8280. In view of the actual span of 46 khz currently in use by rtty and data emission modes on this band, an increase in the size of this segment is certainly reasonable to meet the needs and suppress the proposed 97.221(c)(1). With a review, the ARRL can coordinate increases in segment sizes for most bands for the same reason and consistent with international plans, if and where necessary.

11. The proposed rule 97.221(c)(2) sets a maximum occupied bandwidth of 500 hz for automatically controlled stations that would qualify otherwise to use frequencies throughout the digital bands. If 97.221 were to be instated, then part (c)(2) should accommodate the needs of all the existing modes unless a reason is given for not. The needed bandwidth for the HF packet mode is 540 hz according to CCIR and FCC formula. If we can assume the ratio of needed-to-occupied bandwidth to be the same for similiar

modes, then those who will accept an occupied 500 hz as adequate to accommodate the acceptable pactor mode's needed 404 hz, would need only to accept an increase to 670 hz occupied bandwidth to include the HF packet mode, and thus not needlessly discriminate against, or handicap the activities of any digital mode. I suggest that since all digital modes are in accord with the existing regulation 2.202, there is no need for 97.221(c)(2).

12. Because of the inclusion of 97.221(c)(1), Docket 94-59 can not serve, as the interference problem would continue to inhibit the needs and benefits of amateurs, and, additionally, because some of the band segment sizes in proposed 97.221(b) are not realistic, I recommend that no rule changes be made, as proposed in docket 94-59, until the ARRL can investigate the needs of all digital radio amateurs, review the choice of band segments, and then accordingly submit a new petition.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "Bruce L. Hoff".

Bruce L. Hoff